

STRUCTURES 12A, B, C, and D

These four structures are reinforced concrete, gated spillways with the discharge of each controlled by six cable operated, vertical lift gates. Operation of gates is manually controlled, and the gates are operated in accordance with the seasonal operational criteria. The structures are located in Levee 29 (U.S. Highway 41) on the south perimeter of Conservation Area #3A, about 30 miles west of Miami.

PURPOSE

These structures provide the principal means of discharge from Conservation Area #3A. Relatively minor discharge can also be made by S-151 into Conservation Area 3B. Structures 12A, B, C, and D provide the principal means of discharge to the Everglades National Park.

OPERATING CRITERIA

These structures are operated by the South Florida Water Management District for the U.S. Corps of Engineers, in accordance with the "Rain-driven Water Deliveries to Everglades National Park," the Regulation Schedule of Conservation Area 3A and the operation plan for protection of the Cape Sable Seaside Sparrow.

Instructions from the U.S. Corps of Engineers by letter of 10 June 82: When full gate opening is ordered, open gates 3 feet out of water.

The L-67A borrow canal stage should not be drawn down below 7.5 feet - NGVD unless water is supplied from another source.

FLOOD DISCHARGE CHARACTERISTICS

	Design
Discharge Rate (total of 4)	<u>32,000</u> cfs
	<u>100</u> % SPF
Headwater Elevation	<u>12.4</u> feet
Tailwater Elevation	<u>11.9</u> feet
Type Discharge	<u>submerged uncontrolled</u>

DESCRIPTION OF STRUCTURE

Type Four fixed crest, reinforced concrete gated spillways

Weir Crest

Net Length 150 feet (for each of four structures)

Elevation 0.8 feet

Service Bridge elevation 16.0 feet

Water level which will by-pass structure 12.0 feet

Gates

Number 6 (for each of four structures)

Size 10.2 feet high by 25.8 feet wide

Type vertical lift

Bottom elevation of gates, full open 14.1 feet

Top elevation of gates, full closed 11.0 feet

Control manual

Lifting Mechanism

Normal power source commercial electricity

Emergency power source gasoline driven generator

Type hoist hydraulic cylinder actuated by electric motor
pump, with emergency hand pump, connected to
gate by steel cables.

Date of Acceptance into Service _____

ACCESS: Structure located on U.S. Highway #41

HYDRAULIC & HYDROLOGIC MEASUREMENTS

Water Level Telemetry satellite readings at upstream and downstream recorder on each
structure

Gate Position Recorder None

DEWATERING FACILITIES

Storage Clewiston Office of U.S. Corps of Engineers

Size & Number (per bay)

Upstream

Type timber stop logs & vertical aluminum guides

Stop logs

Number 56

Size 6" X 12" X 6'-4" long

Vertical Guides

Number 3

Size 8" H 13.32# X 16'-6" long

Downstream

Type timber needles & steel needle beams

Beam

Size 14WF84, 26'-10" long

Needles - 54 each @ 6" X 6" X 13'-6" long

1 each @ 2" X 6" X 13'-6" long